

Serial No. 09/940,522

Docket No.: 1359.1052

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1. (canceled)

2. (canceled)

3. (CURRENTLY AMENDED) A voice interactive system, comprising:
a voice information input part inputting voice information of a first user from a user terminal;
a voice recognition part conducting voice recognition with respect to the voice information and analyzing contents of the voice information;
a voice information mediation part controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;
an interaction engine extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and
a voice information output part outputting the synthesized voice. A voice interactive system according to claim 1, wherein the voice information mediation part determines whether or not the first user's interaction is being smoothly conducted based on monitors at all times an average reaction time, from a response of the interaction engine to a reaction of the first user, and in a case where the average reaction time exceeds a first threshold value that is an upper limit of a reaction time in an ordinary interaction or in a case where the average reaction time is below a second threshold value that is a lower limit of the reaction time in the ordinary interaction, determines that an interaction between the first user and the interaction engine is not being smoothly conducted and allows a third-party user to participate in the interaction between the first user and the interaction engine from another user terminal as a helper, from a terminal other than the user terminal.

4. (canceled)

Serial No. 09/940,522

Docket No.: 1359.1052

5. (CURRENTLY AMENDED) A voice interactive system, comprising:
a voice information input part inputting voice information of a first user from a user
terminal;
a voice recognition part conducting voice recognition with respect to the voice information
and analyzing contents of the voice information;
a voice information mediation part controlling a transmission path of the voice
information in accordance with the analyzed contents of the voice information;
an interaction engine extracting contents of a response corresponding to the voice
information by referring to a knowledge database and creating a synthesized voice in
accordance with the extracted contents of the response; and
a voice information output part for outputting the synthesized voice,
A voice interactive system according to claim 1,
wherein the voice information mediation part determines a progress of interaction in
accordance with an interaction time from a beginning of the first user's interaction and the
number of accesses to the interaction engine, and a participation form of the third-party user is
successively changed, in an increasing order of the progress of interaction, from involvement in
which the contents of interaction with the first user is displayed to the third-party user and the
contents of interaction is updated by the third-party user, parallel input in which the third-party
user conducts an input in parallel with the user, to switching in which the third-party user directly
interacts with the first user; monitors at all times whether or not an interaction between the first
user and the interaction engine is being smoothly conducted and, in a case of determining that
the interaction is not being smoothly conducted, allows a third-party user to participate in the
interaction between the first user and the interaction engine as a helper from a terminal other
than the first user and the interaction engine as a helper from a terminal other than the user
terminal, determines a progress of interaction in accordance with an interaction time from a
beginning of the interaction between the first user and the interaction engine and the number of
accesses from the user terminal to the interaction engine and the number of accesses from the
user terminal to the interaction engine, and changes a participation mode of the third-party user
successively, in an increasing order of progress of interaction, from (1) involvement, (2) parallel
input, to (3) switching, and
in a case where the participation mode is (1) involvement, the third-party user is capable
of updating contents of interaction between the first user and the interaction engine, in a case
where the participation mode is (2) parallel input, the third-part user is capable of conducting an

Serial No. 09/940,522

Docket No.: 1359.1052

input in parallel with the first user, and in a case where the participation mode is (3) switching, the third-party user is capable of directly interacting with the first user.

6. (CURRENTLY AMENDED) A voice interactive system according to claim 4~~3~~, wherein the interaction engine further includes an interaction history information storage part for recording interaction history on a first user basis, and a helper selection part for selecting the third-party user that is considered to be most familiar with the contents of the interaction from the interaction history, as a helper, and the helper most appropriate for the contents of the voice information is selected.

7. (CURRENTLY AMENDED) A voice interactive system, comprising:
a voice information input part inputting voice information of a first user from a user terminal;
a voice recognition part conducting voice recognition with respect to the voice information and analyzing contents of the voice information;
a voice information mediation part controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;
an interaction engine extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and
a voice information output part outputting the synthesized voice, wherein the voice information mediation part monitors at all times whether or not an interaction between the first user and the interaction engine is being smoothly conducted and, in a case of determining that the user's interaction is not being smoothly conducted, allows a third-party user to participate in the interaction between the user and the interaction engine, as a helper, from another terminal other than the user terminal;

~~A voice interactive system according to claim 1, further comprising:~~
~~a help request notification part for operative,~~ in a case where the voice information mediation part determines that the ~~user's~~ interaction is not being smoothly conducted, ~~notifying to notify~~ a third-party helper user of such a fact; ~~and~~
~~wherein~~ in a case where the help request notification part notifies the third-party helper user of the fact that the first user's interaction is not being smoothly conducted, the third-party helper-user is capable of voluntarily interacting with the first user, and in a case where it is detected that only a voice of the third-party helper user continues, for a predetermined period of

Serial No. 09/940,522

Docket No.: 1359.1052

time or longer, in an interaction between the third-party ~~helper~~ user and the first user, the interaction engine interacts only with the third-party ~~helper~~ user.

8. (CURRENTLY AMENDED) A voice interactive system according to claim 43, further comprising

an interaction history display part ~~for~~ displaying the interaction history stored in the interaction history information storage part to a third-party ~~helper~~ user; and
a helper instruction part for receiving a help instruction from the third-party helper user,
wherein:

when the help instruction part receives the help instruction from the third-party helper user, the voice information mediation part enables the interaction between the third-party helper user and the user to be conducted, and

when a degree of help of the third-party helper user exceeds a predetermined threshold value in interaction between the third-party helper user and the first user, the interaction engine interacts only with the third-party helper user.

9. (CURRENTLY AMENDED) A voice interactive method, comprising:

inputting a first user's voice information from a user terminal;

conducting voice recognition with respect to the voice information, and analyzing contents of the voice information;

controlling a transmission path of the voice information in accordance with the contents of the voice information; and

outputting a synthesized voice; and

~~in the controlling of a transmission path of the voice information, comprising:~~

extractive contents of a response corresponding to the voice information ~~being~~ extracted by referring to a knowledge database, and creating a synthesized voice ~~being~~ created in accordance with the contents of a the response, and

~~wherein in the controlling of a transmission path of the voice information, it is~~ monitored monitoring at all times whether or not the user's interaction is being smoothly conducted, and in a case where it is determined that the user's interaction is not being smoothly conducted, allowing a third-party user ~~is allowed~~ to participate in the interaction between the user and the an interaction engine from another terminal as a helper.

Serial No. 09/940,522

Docket No.: 1359.1052

10. (CURRENTLY AMENDED) A A computer-readable medium storing a program to be read and executed by a computer, for processing an input user's voice information, by:
comprising:

inputting a first user's voice information;
conducting voice recognition with respect to the voice information, and analyzing contents of the voice information;
controlling a transmission path of the voice information in accordance with the contents of the voice information; and

outputting a synthesized voice, wherein:

in the controlling of a transmission path of the voice information, contents of a response corresponding to the voice information being extracted by referring to a knowledge database, and a synthesized voice being created in accordance with the contents of a the response, and

~~wherein~~ in the controlling of a transmission path of the voice information, ~~it is monitored~~ monitoring at all times whether or not the user's interaction is being smoothly conducted, and in a case where it is determined that the user's interaction is not being smoothly conducted, allowing a second third-party user ~~is allowed~~ to participate in interaction between the first user and the an interaction engine from another terminal, as a helper.

11. (New) A voice interactive system according to claim 5, wherein the interaction engine further includes an interaction history information storage part for recording interaction history on a first user basis, and a helper selection part for selecting the third-party user that is considered to be most familiar with the contents of the interaction from the interaction history, as a helper, and the helper most appropriate for the contents of the voice information is selected.

12. (New) A voice interactive system according to claim 7, wherein the interaction engine further includes an interaction history information storage part for recording interaction history on a first user basis, and a helper selection part for selecting the third-party user that is considered to be most familiar with the contents of the interaction from the interaction history, as a helper, and the helper most appropriate for the contents of the voice information is selected.

13. (New) A voice interactive system according to claim 5, further comprising an interaction history display part displaying the interaction history stored in the

Serial No. 09/940,522

Docket No.: 1359.1052

interaction history information storage part to a third-party user; and
a helper instruction part for receiving a help instruction from the third-party helper user, wherein:

when the help instruction part receives the help instruction from the third-party helper user, the voice information mediation part enables the interaction between the third-party helper user and the user to be conducted, and

when a degree of help of the third-party helper user exceeds a predetermined threshold value in interaction between the third-party helper user and the first user, the interaction engine interacts only with the third-party helper user.

14. (New) A voice interactive system according to claim 7, further comprising
an interaction history display part displaying the interaction history stored in the
interaction history information storage part to a third-party user; and
a helper instruction part for receiving a help instruction from the third-party helper user, wherein:

when the help instruction part receives the help instruction from the third-party helper user, the voice information mediation part enables the interaction between the third-party helper user and the user to be conducted, and

when a degree of help of the third-party helper user exceeds a predetermined threshold value in interaction between the third-party helper user and the first user, the interaction engine interacts only with the third-party helper user.

15. (New) A voice interactive method, comprising:
inputting voice information of a first user from a user terminal;
conducting voice recognition with respect to the voice information and analyzing contents
of the voice information;

controlling a transmission path of the voice information in accordance with the analyzed
contents of the voice information;

extracting contents of a response corresponding to the voice information by referring to a
knowledge database and creating a synthesized voice in accordance with the extracted contents
of the response; and

outputting the synthesized voice,

wherein the voice information mediation part monitors at all times whether or not an
interaction between the first user and an interaction engine is being smoothly conducted and, in
a case of determining that the interaction is not being smoothly conducted, allows a third-party
user to participate in the interaction between the first user and the interaction engine, as a

Serial No. 09/940,522

Docket No.: 1359.1052

helper, from a terminal other than the first user and the interaction engine as a helper from a terminal other than the user terminal, determining a progress of interaction in accordance with an interaction time from a beginning of the interaction between the first user and the interaction engine and the number of accesses from the user terminal to the interaction engine and the number of accesses from the user terminal to the interaction engine, and changing a participation mode of the third-party user successively, in an increasing order of progress of interaction, from (1) involvement, (2) parallel input, to (3) switching, and

in a case where the participation mode is (1) involvement, permitting the third-party user to update contents of interaction between the first user and the interaction engine, in a case where the participation mode is (2) parallel input, permitting the third-part user to conduct an input in parallel with the first user and, in a case where the participation mode is (3) switching, permitting the third-part user to directly interact with the first user.

16. (New) A computer-readable medium storing a program to be read and executed by a computer for processing an input user's voice information, by:

inputting voice information of a first user from a user terminal;

conducting voice recognition with respect to the voice information and analyzing contents of the voice information;

controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and

outputting the synthesized voice,

wherein the voice information mediation part monitors at all times whether or not an interaction between the first user and an interaction engine is being smoothly conducted and, in a case of determining that the interaction is not being smoothly conducted, allows a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first user and the interaction engine, as a helper, from a terminal other than the user terminal, determining a progress of interaction in accordance with an interaction time from a beginning of the interaction between the first user and the interaction engine and the number of accesses from the user terminal to the interaction engine and the number of accesses from the user terminal to the interaction engine, and changing a participation mode of the third-party user successively, in an increasing order of progress of

Serial No. 09/940,522

Docket No.: 1359.1052

interaction, from (1) involvement, (2) parallel input, to (3) switching, and

in a case where the participation mode is (1) involvement, permitting the third-party user to update contents of interaction between the first user and the interaction engine, in a case where the participation mode is (2) parallel input, permitting the third-part user to conduct an input in parallel with the first user and, in a case where the participation mode is (3) switching, permitting the third-part user to directly interact with the first user.